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STANFORD UNIVERSITY

OFFICE OF

School of Biological Sciences

January 12, 1948

President Donald B. Tresidder
Stanford University
Stanford, California

Dear President Tresidder:

On the accompanying forms I am recommending the appointment of Dr. Edward Lawrie Tatum as Professor of Biology beginning September 1, 1948. Dr. Tatum was born in Boulder, Colorado in 1909, the son of an eminent biochemist now on the faculty of the University of Wisconsin. Edward Tatum received the A. B. degree from Wisconsin in 1931 and in 1935 the Ph.D. in biochemical bacteriology under the direction of E. B. Fred, now the President of the University of Wisconsin. Tatum was an assistant in agricultural chemistry and bacteriology at Wisconsin 1931-36; General Education Board Fellow in bacteriological chemistry, Utrecht 1936-37; Research Associate in Biology, Stanford 1937-41; Assistant Professor of Biology, Stanford 1941-45; on leave winter 44-45 in cancer research, Department of Anatomy, Washington University, St. Louis (with honorary appointment as Assistant Professor); Associate Professor of Botany, Yale, 1945-46; Professor of Microbiology, Yale 1946 --.

A few years ago in Jordan Hall, G. W. Beadle as a geneticist and E. L. Tatum as a biochemist combined forces to create a new departure in Biology, establishing a new field now commonly called Biochemical Genetics. It was already known that penetrating radiation greatly increases the incidence of mutations in living organisms. By ingenious biochemical methods, Beadle and Tatum devised a means of identifying and selecting mutants with almost any desired biochemical properities from amongst myriads of radiated individuals, so that, in effect, organisms could be produced at will with almost any predetermined biochemical specifications. They used a pink bread mold (Neurospora) at first, but the method is widely applicable. During the war, for example, they quickly produced for the government a new strain of the green bread mold penicillin that gave more than twice the former yield of penicillin. Beadle and Tatum's new departure was probably the most important contribution not only to genetics but to all biology in more than a decade, and Beadle and Tatum are among the best known names in the world in Biology today. We lost Beadle to Cal Tech, but in bringing Tatum back from Yale we shall re-establish a great research center at Stanford. Furthermore, it may well be that Biochemical Genetics is destined to revolutionize Biochemistry even more than

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Genetics, and we are getting a strong partner to the team.

The next great discovery in Biochemical Genetics, and one that is destined to be a classic, has just been made by Tatum with his student Lederberg (1947). They grew 2 strains of bacteria with different biochemical properties, then mixed the two strains in a common culture for a few days. They then retrieved individual bacteria from the mixed culture to seed new colonies, and found that they now had pure cultures not only of both ancestral types but also of new strains with mixed biochemical properties. This simple experiment is taken either to demonstrate for the first time biparental inheritance and sexual reproduction in the bacteria, or alternately and with perhaps even greater interest to mean that one individual organism lying close to another can induce in the other directed mutations or changes in its genes that make them become similar to the genes of the first individual.

My only regret in recommending this appointment is that we are almost wrecking Yale's new Microbiological Institute in which Tatum is the key man.

I attach a copy of Tatum's Bibliography which is up to date except for a number of papers in press and manuscript.

Sincerely Yours,

Douglas Whitaker
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